



MATERIAL SAFETY DATA SHEET
UNIVERSAL FOREST PRODUCTS®, INC.
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SECTION 1 – PRODUCT IDENTIFICATION

PRODUCT NAME:	<u>ACQ PRESSURE-TREATED WOOD</u>
SYNONYMS:	Wood pressure treated with Alkaline Copper and Quaternary Ammonium compounds. ACQ treated wood products with water repellent (includes Thompsonized® Treated Wood). ACQ treated wood products with mold inhibitor. ACQ treated formaldehyde bonded products (plywood).
DESCRIPTION:	Wood, often green colored.
PURPOSE:	For use where wood is subject to decay or termite attack.
PREPARED BY:	Legal Compliance Department

SECTION 2 – HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

CAS #	Hazardous Component	Percent ¹
N/A	Wood/Wood dust	90-98.5
141-43-5	Monoethanolamine	0.8-5.5
Proprietary	Copper complex expressed as Copper Oxides	0.3-2.1
10043-35-3	Boric Acid	0.2-1.2
Proprietary	Didecyl dimethyl ammonium carbonate and Didecyl dimethyl ammonium bicarbonate	0.1-1.0
50-00-0	Formaldehyde ²	0-8

¹The above values may vary due to the variability of treatment and the natural variability of wood

²Formaldehyde present only in those products bonded with formaldehyde based glues

This Product is considered hazardous under the criteria in 29 CFR 1910.1200 (Hazard Communication Standard) and the Canadian Workplace Hazardous Materials Information System.

SECTION 3 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Solid wood, appearance may vary	Specific Gravity:	Not Available
Odor:	Ammoniacal/wood odor	Vapor Pressure:	Not Available
Boiling Point:	Not Applicable	Vapor Density:	Not Applicable
Melting Point:	Not Applicable	Density:	Not Applicable
Freezing Point:	Not Applicable	% Volatile by Volume:	Not Applicable
Weight per Gallon:	Not Applicable	Solubility (H ₂ O):	Not Applicable
Evaporation Rate:	Not Applicable	Reactivity (H ₂ O):	Not Applicable

SECTION 4 – FIRE AND EXPLOSION HAZARD

Flash Point	Method	Upper/Lower Flammable Limit	Auto-ignition	Rate of Burn	Classification
Not Applicable	Not Applicable	Not Available	Not Available	Not Available	Combustible

Unusual Fire and Explosion Hazards: Wood is combustible, and wood dusts may form explosive mixtures with air in the presence of an ignition source. Combustion products may yield irritating and toxic fumes and gasses including organic chloride, aldehydes, amines, hydrogen chloride, ammonia, copper compounds, oxygen, boric acid, oxides of carbon and nitrogen.

Fire Fighting Equipment and Extinguishing Media: Use water to wet down wood to reduce the likelihood of ignition. Fire fighters should use full protective clothing including self-contained breathing apparatus.

NFPA Codes: Health 1
 Flammability 1
 Reactivity 0
 Other N/A

HMS Codes: Health 1
 Flammability 1
 Reactivity 0
 Protection B

SECTION 5 – HEALTH HAZARDS AND FIRST AID

WARNING! Wood dust may form an explosive mixture with air, use exhaust ventilation when cutting, sawing or grinding in an enclosed area. Wood dust may cause irritation to eyes, skin, and upper respiratory tract. When cutting, sanding, or grinding avoid inhalation and wear safety glasses. Handling may cause splinters, use puncture resistant gloves. Do not burn ACQ Pressure-Treated Wood in open fires, stoves, fireplaces, or residential boilers. Observe good hygiene and safety practices when handling this product.

	Signs and symptoms of acute overexposure	First Aid Measures
Eyes:	Wood dust may cause irritation to the eyes. Symptoms can include irritation, redness, scratching of the cornea, and tearing	Immediately flush eyes with water for at least 15 minutes. Seek medical attention if symptoms persist
Skin:	Wood dust may cause irritation to the skin. Mechanical rubbing may increase skin irritation. Some wood species and their dusts may contain natural toxins, which may cause dermatitis or allergic reactions in sensitized individuals.	For irritation from skin contact flush immediately with soap and water, continue at least 15 minutes. If irritation persists, get medical attention immediately. If wood splinters are injected under the skin, get medical attention.
Ingestion:	If ingestion does occur, slight gastrointestinal irritation may result. Certain species of wood and their dusts may contain natural toxins, which can have adverse effects on humans.	If the material is swallowed, get medical attention or advice. Do not induce vomiting.
Inhalation:	Wood dust is irritating to the nose throat and lungs. Symptoms may include nasal dryness, deposits or obstructions in the nasal passages, coughing, sneezing, dryness and soreness of the throat and sinuses, hoarseness, and wheezing. Prolonged or repeated inhalation of wood dusts may cause respiratory irritation, recurrent bronchitis, and prolonged colds. Some species may cause allergic respiratory reactions with asthma-like symptoms in sensitized individuals. Prolonged exposure to wood dust by inhalation has been reported to be associated with nasal and paranasal cancer.	If dusts are inhaled, remove person to fresh air. If symptoms persist, seek medical attention.

Note to Physician: Respiratory ailments and pre-existing skin conditions may be aggravated by exposure to wood dust

Medical Conditions Generally Aggravated by Exposure to Wood Dust: Pre-existing eye, respiratory system and skin conditions.

Chronic Overexposure: Wood dusts may be irritating to the eyes, skin and respiratory tract. Prolonged or repeated inhalation of wood dust may cause respiratory irritation, recurrent bronchitis, and prolonged colds. Depending on the species of wood, recurrent exposure may cause allergic skin and respiratory reactions in some individuals.

Carcinogenicity: ACQ treated wood and its components are not listed as a carcinogens by ACGIH, NIOSH, of IARC. Wood dust is classified as a carcinogen by ACGIH, NIOSH, and IARC. This classification is based on an increased incidence of nasal and paranasal cancer in people exposed to wood dusts. Carcinogenicity of wood dust: ACGIH – A1 Confirmed Human Carcinogen (related to wood dusts-hard wood; NIOSH – Occupational carcinogen (related to wood dust); IARC -- Monograph 62, 1995 (related to wood dust)(Group 1 (carcinogenic to humans)). IARC has listed formaldehyde as a probable human carcinogen.

SECTION 6 – EXPOSURE CONTROL MEASURES/PERSONAL PROTECTION

Personal Protective Equipment

- Eyes/Face: Wear Safety glasses with side shields when handling, cutting, sanding, or grinding this material. Use a face shield for processes that may generate excessive dusts and splinters
- Skin: Wear puncture resistant work gloves, such as leather when handling
- Respiratory: Respirators must be worn if the ambient concentration of airborne contaminants exceeds prescribed exposure limits. Dust masks may be worn to avoid inhalation of nuisance dust. Dust masks may not be adequate protection in environments above the occupational exposure limit.
- Ventilation: Cutting, grinding or sanding should be done outdoors or in a well ventilated area.

Component Exposure Limits*

Component	OSHA		ACGIH	
	PEL	STEL	TLV	TLV STEL
**Wood/Wood dust	15 mg/m ³ total dust 5 mg/m ³ respirable fraction (as a nuisance dust)	N/A	5 mg/m ³ TWA	10 mg/m ³ TWA
Monoethanolamine	3 ppm, 6 mg/m ³	N/A	3 ppm, 7.5 mg/m ³	6 ppm, 15 mg/m ³
Copper complex expressed as Copper Oxides	0.1 mg/m ³ TWA (fume)	N/A	N/A	N/A
Boric Acid	15 mg/m ³ total dust 5 mg/m ³ respirable fraction (as a nuisance dust)	N/A	10 mg/m ³ total dust (PNOC)	N/A
Didecyl dimethyl ammonium carbonate and Didecyl dimethyl ammonium bicarbonate	N/A	N/A	N/A	N/A
Formaldehyde	0.75 ppm	2 ppm	0.3 ppm	N/A

**A state run OSHA program may have more stringent limits for wood dust and/or PNOR.

SECTION 7 – SAFE HANDLING, STORAGE, DISPOSAL, AND ACCIDENTAL RELEASE MEASURES

Handling Procedures:

- Do not generate airborne dusts in the presence of an ignition source when sawing, cutting or grinding wood.
- Some preservative may migrate from the treated wood into soil/water or may dislodge from the wood upon contact with skin. Wash exposed areas thoroughly. Wash hands after handling and before eating.
- Avoid contact of wood dusts with skin and eyes. Avoid breathing wood dusts.
- Do not eat, drink, or smoke when handling this product or in areas where dusts of this product are present.
- Do not use in direct contact with aluminum. Use hot-dip galvanized, stainless steel or other fasteners, hardware and sheet products as recommended by the hardware manufacturer.

Storage Procedures

- Maintain good housekeeping procedures, such as sweeping regularly to avoid accumulation of dusts
- Store away from excessive heat, sparks, and open flame.

Disposal Procedures

- Do not burn ACQ pressure treated lumber in open fires, stoves, fireplaces, or residential boilers.
- Do not use as mulch.
- Dispose of waste material according to local, State, and Federal Regulations.

Accidental Release Measures

- No containment procedures are needed as this product cannot spill or leak the preservative.

SECTION 8 – HUMAN AND ECOLOGICAL TOXICITY

Ecotoxicity: The wood preservatives in this product contain insecticides and fungicides, which when released into the environment, are expected to adversely affect or destroy contaminated plants. They may be harmful or fatal to wildlife

Monoethanolamine	
Toxicity	Oral LD50 Rat: 1720 mg/kg Oral LD50 Mouse: 700 mg/kg Dermal LD50 Rabbit: 1 mg/kg 30 ppm IDLH
Aquatic Toxicity	LC50 (96 hr) goldfish: 170 mg/l EC50 (30 min) Photobacterium phosphoreum: 13.7 mg/l Microtox test

Boric Acid	
Toxicity	Oral LD50 Rat: 2660 mg/kg Oral LD50 Mouse: 3450 mg/kg
Aquatic Toxicity	LC50 (48 hr) water flea: 115.0 – 153.0 mg/l (static conditions)

Copper complex (proprietary)	
Toxicity	Oral LD50 Rat: 1350 mg/kg Inhalation LC50 Rat: 2000 ppm/4H Dusts or mists as Cu: 100 mg/m ³ IDLH (related to copper)
Aquatic Toxicity	LC50 (96 hr) feathered minnow: 23 ug/L (20 mg CaCO ₃ /L) LC50 (96 hr) rainbow trout: 13.8 ug/L (juveniles) LC50 (96 hr) bluegill: 236-892 ug/L (adults – related to copper) LC50 (72 hr) freshwater algae: 120 ug/L (related to copper) LC50 (96 hr) water flea: 10 ug/L (45 mg CaCO ₃ /L) LC50 (96 hr) water flea: 200 ug/L (226 mg CaCO ₃ /L – related to copper)

Didecyl dimethyl ammonium carbonate and Didecyl dimethyl ammonium bicarbonate	
Toxicity	Oral LD50 Rat: 245 mg/kg Skin Irritation (rabbit): Corrosive Photosensitization (guinea pig) Not a sensitizer or photoallergen
Aquatic Toxicity	LC50 (96 hr) rainbow trout – Static: 0.810 mg/l LC50 (96 hr) bluegill sunfish – Static/Renewal: 0.28 mg/l LC50 (96 hr) sheepshead minnow – Static/Renewal: 1.110 mg/l LC50 (96 hr) mysid shrimp – Static: 0.066 mg/l EC50 (48 hr) daphnia magna – Static: 0.073 mg/l

Formaldehyde	
Toxicity	LC50 Rat: 203 mg/m ³ Oral LD50 Rat: 0.8 g/kg Skin Irritation, Rabbit: 0.27 g/kg
Aquatic Toxicity	Not Available

SECTION 9 – REGULATORY INFORMATION

SARA Sec. 302 & 304: N/A

SARA Section 311/312: Acute Health: Yes Chronic Health: Yes Fire: Yes Pressure: No Reactive: No

SARA 313: Form R required for 1.0% de minimis concentration. (related to copper)

FIFRA: This material contains the following chemical present on either the Listing of Pesticide Chemicals (40 CFR 180) or Pesticides Classified for Restricted Use as listed by FIFRA: Copper complex

DOT: Not Regulated

Marine Pollutant: This material contains copper complex, required by USDOT to be identified as a marine pollutant

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